



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,922	10/01/2003	Charles W. Friedli	ISO1359ESG	1767

7590 08/19/2005  
MOTOROLA ENERGY SYSTEMS GROUP  
1700 BELLE MEADE COURT  
LAWRENCEVILLE, GA 30043

EXAMINER
----------

PIGGUSH, AARON C

ART UNIT	PAPER NUMBER
----------	--------------

2838

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/677,922

Applicant(s)

FRIEDLI ET AL.

Examiner

Aaron Piggush

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 9, and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ferrell (US 4,213,078).

With respect to claim 1, Ferrell discloses a latch for a rechargeable battery pack (abstract In 4-8), comprising:

a planar member (30 in Fig. 1);  
at least one spring retention post coupled to the planar member (20-2 in Fig. 3);  
at least one insertion snap coupled to the planar member (as seen on 30 in Fig. 3); and  
at least one barbed wing member coupled to the planar member, extending distally outward from the planar member (as seen on the side of 30 in Fig. 3 or 20-1 in Fig. 3).

With respect to claim 2, Ferrell discloses the latch of claim 1, further comprising at least one mechanical stop coupled to the planar member (30-2 in Fig. 12).

With respect to claim 3, Ferrell discloses the latch of claim 2, further comprising at least one barbed wing member support, wherein the at least one barbed wing member support extends perpendicularly from the planar member such that the barbed wing member is in a non-coplanar

geometric relationship with the planar member (as seen on 30 in Fig. 3 and bottom of 30-1 in Fig. 12).

With respect to claim 4, Ferrell discloses the latch of claim 2, further comprising a finger grip on the planar member (as seen on top of 30 in Fig. 3 and col 4 ln 65-67).

With respect to claim 5, Ferrell discloses the latch of claim 1, wherein the latch comprises two barbed wing members, wherein a first barbed wing member extends distally from a first edge of the planar member, and a second barbed wing member extends distally from a second edge of the planar member, wherein the first barbed wing member and the second barbed wing member are collinear (30-3 in Fig. 3).

With respect to claim 9, Ferrell discloses a rechargeable battery pack, comprising:  
at least one rechargeable battery cell (col 3 ln 10);  
a housing comprising a top and a bottom, into which the at least one rechargeable battery cell is placed (20 in Fig. 3), wherein the housing comprises at least one latch aperture for receiving a battery latch (opening at end of 20 in Fig. 3); and  
the latch of claim 1 (30 in Fig. 3 and described in the rejection of claim 1).

With respect to claim 12, Ferrell discloses the battery pack of claim 9, wherein the latch aperture comprises at least one slot for receiving the at least one insertion snap (as seen on the end of 20 in Fig. 3).

With respect to claim 13, Ferrell discloses the battery pack of claim 9, wherein the latch aperture comprises at least one slot for receiving the at least one mechanical stop (20-4 in Fig. 3).

Art Unit: 2838

With respect to claim 14, Ferrell discloses the battery pack of claim 9, wherein the latch aperture comprises at least one slot for receiving the at least one barbed wing member (20-5 in Fig. 3).

3. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Sharrah (US 6,633,152).

With respect to claim 1, Sharrah discloses a latch for a rechargeable battery pack, comprising:

- a planar member (81 in Fig. 9);
- at least one spring retention post coupled to the planar member (84 in Fig. 9);
- at least one insertion snap coupled to the planar member (82 and 83 in Fig. 9); and
- at least one barbed wing member coupled to the planar member, extending distally outward from the planar member (80 in Fig. 9).

With respect to claim 2, Sharrah discloses the latch of claim 1, further comprising at least one mechanical stop coupled to the planar member (right side of case under 80 in Fig. 9).

With respect to claim 3, Sharrah discloses the latch of claim 2, further comprising at least one barbed wing member support, wherein the at least one barbed wing member support extends perpendicularly from the planar member such that the barbed wing member is in a non-coplanar geometric relationship with the planar member (83 in Fig. 9).

With respect to claim 4, Sharrah discloses the latch of claim 2, further comprising a finger grip on the planar member (81 in Fig. 9).

With respect to claim 5, Sharrah discloses the latch of claim 1, wherein the latch comprises two barbed wing members, wherein a first barbed wing member extends distally from

Art Unit: 2838

a first edge of the planar member, and a second barbed wing member extends distally from a second edge of the planar member, wherein the first barbed wing member and the second barbed wing member are collinear (83 in Fig. 9 and top of 80 in Fig. 9).

With respect to claim 6, Sharrah discloses the latch of claim 3, wherein each of the barbed wing members comprises at least one barb, wherein the at least one barb extends from the barbed wing members perpendicularly (82 in Fig. 9).

With respect to claim 7, Sharrah discloses the latch of claim 6, wherein the at least one barb comprises at least one inclined planar member (80 in Fig. 9).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharrah (US 6,633,152) in view of Ferrell (US 4,213,078).

With respect to claim 8, Sharrah discloses the latch of claim 7 as noted under the rejection under 35 U.S.C. 102(e), however, does not expressly disclose wherein the latch is manufactured from a material selected from the group consisting of plastics, styrene, ABS, polystyrene, acrylic, polycarbonates, resin, and rubber.

Ferrell discloses wherein the latch is manufactured from plastic or another insulating material (col 4 ln 64-65), so that user would be protected from any shock and so that the latch or

device would be lightweight, sturdy, and inexpensive as recited by David, Jr. (US 4,728,157 col 3 ln 50-52).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to make the latch of Sharrah out of an insulating material, in order to prevent the user from any shock and to keep the latch or device lightweight, sturdy, and inexpensive.

6. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrell (US 4,213,078) in view of David, Jr. (US 4,728,157).

With respect to claims 10 and 11, Ferrell discloses the battery pack of claim 9 as noted above under the rejection under 35 U.S.C. 102(b) and discloses wherein the latch aperture comprises at least one spring retention post (mid section of 30-2 to which spring 30-4 attaches in Fig. 12 and Fig. 13 and col 5 ln 2-4), however, does not expressly disclose the pack further comprising a butterfly spring.

David, Jr. discloses a latch secured into different positions by action of a butterfly spring connected to a spring retention post (72 in Fig. 2 and col 4 ln 40-44), in order to urge the toggle member into either one of its first and second positions and to provide a definitive latching action (col 4 ln 44-48), which will prevent the disk or other object being secured from coming out of the holder.

Ferrell and David, Jr. are analogous art because they are from the same field of endeavor which is latching mechanisms, and the specification sent in with this application further points out that it would be obvious to those of ordinary skill in the art that the latch assembly may be equally applied to numerous other devices, including detachable accessories (including disk drives).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the battery pack and latch of Ferrell to include a butterfly spring, so that the toggle member could be urged into either of its positions and so that there would be a definitive latching action, which would prevent the battery pack from coming out of its holder.

***Response to Arguments***

7. Applicant's arguments filed July 29, 2005 have been fully considered but they are not persuasive.

With respect to the rejection under 35 U.S.C. 102 by Ferrell (US 4,213,078) regarding claims 1-5, 9, and 12, applicant argues that element 20-2 in Fig. 3 is not a spring retention post.

The examiner respectfully disagrees for the following reasons. The connector spring element 20-2 in Fig. 3 retains contact between the member 20 in Fig. 3 and the circuit board (col 3 ln 16-21), and therefore, the connector spring acts as a spring retention post by securing the contacts so that the circuit for the device is fully functional.

With respect to the rejection under 35 U.S.C. 102 by Sharrah (US 6,633,152) regarding claims 1-7, applicant argues that element 84 in Fig. 9 is not a spring retention post.

The examiner respectfully disagrees for the following reasons. The walls on either side of element 84 in Fig. 9 act as retention posts for the spring, and therefore, they retain the spring so that the latching mechanism of the device can function properly.

With respect to the rejection under 35 U.S.C. 103 by Ferrell (US 4,213,078) in view of Sharrah (US 6,633,152) regarding claim 8, applicant argues that neither Ferrell nor Sharrah teaches a spring retention post as claimed by applicants in claim 1, from which claim 8 depends.



The examiner respectfully disagrees for the reasons listed above addressing the relevance of Ferrell and Sharrah.

With respect to the rejection under 35 U.S.C. 103 by Ferrell (US 4,213,078) in view of David, Jr. (US 4,728,157) regarding claims 10 and 11, applicant argues that David, Jr. fails to teach a spring retention post.

The examiner respectfully disagrees for the following reasons. David, Jr. discloses the spring retention post at the pivot point of the spring 72 in Fig. 2, and additionally, the spring is secured to the wall (16 in Fig. 2) of the device (col 4 ln 40-44) by another spring retention post, so that a pivot can be provided which allows the disk drive to open and close.

#### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

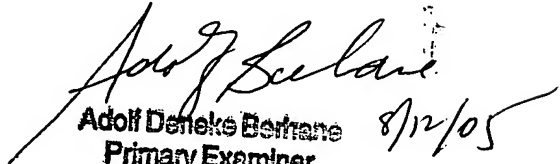
Art Unit: 2838

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Piggush whose telephone number is 571-272-5978. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AP

  
Adolf Deneko Bertrane  
Primary Examiner

8/12/05